

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method to allocate bandwidth, which method is implemented at a central controller of an ad-hoc network, comprising:

allocating, at the central controller, a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, wherein an owner of said certain connection is a requesting terminal which is a terminal of said ad-hoc network, and the predetermined amount of bandwidth is allocated based on a fixed capacity allocation;

freeing, at the central controller, a certain amount of the allocated predetermined amount of bandwidth as freed bandwidth, said ~~certain amount of~~ freed bandwidth being a difference between the allocated predetermined amount of bandwidth and a an indicated needed amount of bandwidth, ~~indicated by said owner~~, wherein said ~~indicated~~ needed amount of bandwidth is determined at the requesting terminal and transmitted to the central controller, and does not exceed said predetermined amount of bandwidth; and

when said ~~owner~~ requesting terminal transmits ~~indicates~~ a new needed amount of bandwidth greater than said ~~indicated~~ needed amount of bandwidth, immediately returning as much of the freed bandwidth as required so that said new needed amount of bandwidth is available to said ~~owner~~ requesting terminal.

2. (Currently Amended) The method according to claim 1, further comprising:

allocating some or all of said ~~certain amount of~~ freed bandwidth to another ~~[[a]]~~ connection of the ad-hoc network, without quality or service requirements, the another connection being a connection ~~of the ad-hoc network~~ without a predetermined amount of allocated bandwidth.

3. (Currently Amended) The method according to claim 1, wherein said requesting terminal is operated by reserving a predetermined amount of bandwidth for providing a certain quality of service for said connection, and said method further comprises:

determining, in the requesting terminal, a filling status of a transmit queue which indicates how much sending data is in the transmit queue,

determining, in the requesting terminal, ~~[[a]]~~ said needed amount of bandwidth as bandwidth needed in a next transmission frame, the needed amount of bandwidth depending on the filling status of the transmit queue and not exceeding said predetermined amount of bandwidth, and

transmitting, from the requesting terminal, ~~indicating~~ said needed amount of bandwidth to said central controller.

4. (Currently Amended) A method to reserve bandwidth for a connection of an ad-hoc network, which method is implemented at a requesting terminal of said ad-hoc network, wherein the requesting terminal or the central controller comprises a transmit queue for buffering sending data, and the requesting terminal is a terminal of the ad-hoc network with said central controller, the method comprising:

reserving, at the requesting terminal, a predetermined amount of bandwidth for providing a certain quality of service for said connection, said predetermined amount of bandwidth allocated based on a fixed capacity allocation;

determining, at the requesting terminal, a filling status of the transmit queue which indicates how much sending data is in the transmit queue;

determining, at the requesting terminal, a needed amount of bandwidth which is needed in a next transmission frame, the needed amount of bandwidth depending on the

filling status of the transmit queue and not exceeding said predetermined amount of bandwidth; and

transmitting, from ~~indicating, at~~ the requesting terminal, said needed amount of bandwidth to said central controller.

5. (Currently Amended) The method according to claim 4, further comprising operating said central controller by allocating a predetermined amount of bandwidth to a certain connection requiring a certain quality of service, wherein an owner of said certain connection is a requesting terminal which is a terminal of said ad-hoc network,

freeing a certain amount of the allocated predetermined amount of bandwidth as freed bandwidth, said ~~certain amount of~~ freed bandwidth being the difference of said predetermined amount of bandwidth and a ~~an indicated~~ needed amount of bandwidth indicated by said owner, and

in case said owner requests a re-allocation of at least parts of the freed bandwidth, immediately re-allocating as much of the freed bandwidth as required so that said ~~indicated~~ needed amount of bandwidth is available to said owner.

6. (Previously Presented) The method according claim 1, wherein said ad-hoc network is an ad hoc network operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN/2) standard.

7. (Currently Amended) A central controller of an ad-hoc network, comprising:
a bandwidth allocation means for allocating a predetermined amount of bandwidth to a certain connection with a certain quality of service requirement, said predetermined amount

of bandwidth allocated based on a fixed capacity allocation, and a requesting terminal being an owner of said connection;

a bandwidth freeing means for receiving a request signal sent out by said owner indicating ~~a~~ ~~an indicated~~ needed amount of bandwidth and when a certain amount of bandwidth neither exceeds the allocated predetermined amount of bandwidth nor said ~~indicated~~ needed amount of bandwidth, freeing the certain amount of bandwidth which is a difference between the allocated predetermined amount of bandwidth and said ~~indicated~~ needed amount of bandwidth, wherein the needed amount of bandwidth is determined at the requesting terminal and transmitted to the central controller; and

a bandwidth returning means for immediately returning as much of said certain amount of bandwidth as required so that said ~~indicated~~ needed amount of bandwidth according to said request signal is available to said owner when said certain amount of bandwidth neither exceeds the allocated predetermined amount of bandwidth nor said ~~indicated~~ needed amount of bandwidth.

8. (Currently Amended) The central controller according to claim 7, comprising
a transmit queue for buffering sending data, and
a monitoring means for monitoring a filling status of said transmit queue and
indicating said ~~indicated~~ needed amount of bandwidth, which depends on the filling status of the transmit queue, to said bandwidth freeing means or to said bandwidth re-allocation means.

9. (Previously Presented) The central controller according to claim 7, wherein

said ad-hoc network is operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN / 2) standard.

10. (Currently Amended) A requesting terminal of an ad-hoc network having a connection with other terminals of the ad-hoc network or with a central controller of the ad-hoc network, the connection requiring a certain quality of service and therefore a predetermined allocated amount of bandwidth, the requesting terminal comprising:

a transmit queue for buffering sending data;

a monitoring means for monitoring a filling status of said transmit queue and sending out a request signal to said central controller indicating a needed amount of bandwidth, which depends on the filling status of said transmit queue, the ~~indicated~~ needed amount of bandwidth being determined at the request terminal and not exceeding the predetermined allocated amount of bandwidth, wherein the predetermined amount of bandwidth is allocated based on a fixed capacity allocation.

11. (Previously Presented) The central controller according to claim 10, wherein said ad-hoc network is operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN / 2) standard.

12. (Currently Amended) The method according to claim 4, wherein said ad-hoc network is operated according to the European Telecommunications Standard Institute High Performance Radio Local Area Networks/2 (ETSI HIPERLAN / 2) standard.

13. (Previously Presented) The method according to claim 1 or 2, wherein said allocated predetermined amount of bandwidth corresponds to a fixed reserved amount of bandwidth.

14. (Canceled)

15. (Previously Presented) The method according to claim 1 or 2, wherein the freed bandwidth is re-allocated in a next transmission frame.

16. (New) The method according to claim 5, further comprising:
allocating some or all of said freed bandwidth to another connection of the ad-hoc network, the another connection being a connection without a predetermined amount of allocated bandwidth.

17. (New) The central controller of an ad-hoc network according to claim 7, wherein the certain amount of bandwidth is allocated to another connection of the ad-hoc network, the another connection being a connection without a predetermined amount of allocated bandwidth.